

10.5.2 Service Limit States

C10.5.2

10.5.2.1 General

C10.5.2.1

Add bullets in paragraph one as follows:

- Soil bearing pressure
- Axial compression resistance for single piles.
- Pile group compression resistance

10.5.3 Strength Limit States

10.5.3.1 General

C10.5.3

C10.5.3.1

C10.5.3.2

10.5.3.2 Spread footings

Delete text as follows:

- ~~Nominal bearing resistance~~

10.5.3.3 Driven Piles

Delete text as follows:

C10.5.3.3

- ~~Axial compression resistance for single piles;~~
- ~~Pile group compression resistance;~~

C10.5.3.4

10.5.3.4 Drilled Shafts

Delete text in paragraph one as follows:

- ~~Axial compression resistance for single drilled shafts~~
- ~~Shaft group compression resistance;~~

10.5.5 Resistance Factors

C10.5.5

10.5.5.2 Strength Limit States

C10.5.5.2

10.5.5.2.1 General

C10.5.5.2.1

10.5.5.2.2 Spread Footings

Revise Table 10.5.5.2.2-1 as follows:

METHOD/SOIL/CONDITION			RESISTANCE FACTOR
Bearing Capacity and Passive Pressure	ϕ_b	Theoretical Method – (Munfakh et al., 2001), in clay	0.50
		Theoretical Method – (Munfakh et al., 2001), in sand, using CPT	0.50
		Theoretical Method – (Munfakh et al., 2001), in sand, using SPT	0.45
		Semi-empirical methods (Meyerhof, 1957), all soils	0.45
		Footings on rock	0.45

Revise Table 10.5.5.2.3-1 as follows:

CONDITION/RESISTANCE DETERMINATION METHOD		RESISTANCE FACTOR
Nominal Axial Resistance of Single Pile in Axial Compression—Dynamic Analysis ϕ_{dyn} and Static Load Test Methods ϕ_{stat}	Driving criteria established by static load test	0.70
	Driving criteria established by static load test, quality control by dynamic testing of 5% of production piles. Dynamic test calibrated by the static load test.	0.75
	Driving criteria established by static load test, quality control by dynamic testing of 15% of production piles. Dynamic test calibrated by the static load test.	0.80
	Driving criteria established by static load test, quality control by dynamic testing of 1005% of production piles. Dynamic test calibrated by the static load test.	0.85
	Driving criteria established by dynamic test with signal matching.	0.65
	Driving criteria established by dynamic test with signal matching, quality control by dynamic testing of 100% of production piles.	0.80
	Wave equation analysis without pile dynamic measurements	0.45
	FHWA-modified Gates dynamic pile formula	0.40
	Engineering News Record dynamic pile formula	0.10
	Skin Friction; Clay	<u>0.75</u>
	α method (Tomlinson, 1987)	0.70
	β method (Esrig & Kirby, 1979)	0.50
	λ method (Vijayvergiya & Focht (1972))	0.55
	End Bearing: Clay and Rock	<u>0.75</u>
	Clay (Skempton, 1951)	0.70
	Rock (Canadian Geot. Society, 1985)	0.50
	Skin Friction and End Bearing: Sand	<u>0.75</u>
	SPT method	0.45
	CPT method	0.55

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Revise Table 10.5.5.2.4-1 as follows:

Table 10.5.5.2.4-1 Resistance Factors for Geotechnical Resistance of Drilled Shafts

METHOD/SOIL/CONDITION			RESISTANCE FACTOR
Nominal Axial Compressive Resistance of Single-Drilled Shafts	Side Resistance in Clay	α -method (Reese and O'Neill 1988)	0.45
	Tip Resistance in Clay	Total Stress (Reese and O'Neill 1988)	0.40
	Tip Resistance in Sand	O'Neill and Reese (1999)	<u>0.75</u> 0.50
	Side Resistance in Rock	Carter and Kulhawy (1988) Horvath and Kenney (1979)	0.55 0.65
	Base Resistance in Rock	Canadian Geotechnical Society (1985) Pressure Method (Canadian Geotechnical Society 1985)	0.50 0.50
	Side Resistance and End Bearing	Load Test	0.80

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